

Saturday



Magazine.

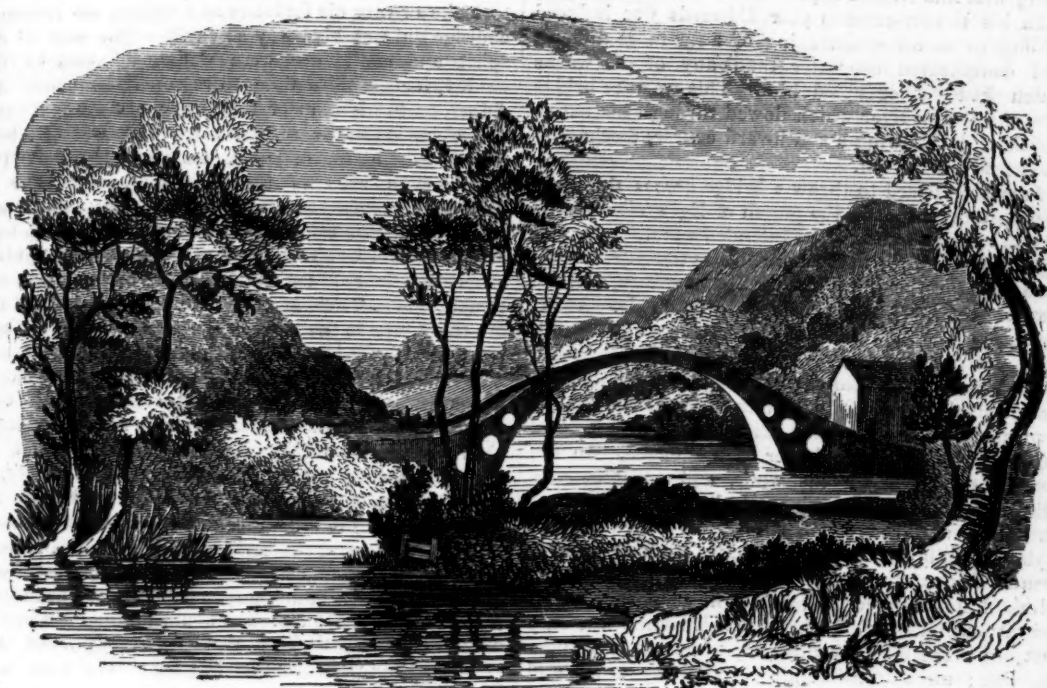
No 445.

JUNE

8TH, 1839.

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ONE PENNY.

PONT Y PRYDD, GLAMORGANSHIRE.



PONT Y PRYDD, OVER THE TAFF.

PONT Y PRYDD, or "the beautiful bridge," is a structure which deserves to be well-known, not only on account of its architectural merits, but also for the history of the extraordinary genius who is inseparably connected with it; and the knowledge of whose name and fortunes is calculated to exist at least as long as the structure we are about to describe,—a singular monument of patience, fortitude, and skill.

WILLIAM EDWARDS was born in the parish of Eglwysilan, in Glamorganshire, in the year 1719. He was the youngest son of a farmer, who died when William was only two years old; but his mother continued to occupy the farm, assisted by two sons and a daughter, all older than William, who also worked on it until he was eighteen years of age. The only education he ever received was being taught to write and read in his native Welsh; but being one of Nature's scholars, with a mind constantly on the alert and greedy for instruction, he taught himself the principles of masonry by wandering among the ruins of an old gothic castle in his native parish. At the age of fifteen he became director-general of the stone-fences of his mother's farm: a species of fence peculiar to the mountain-districts of Wales. The fences in this part of the country are called *dry walls*, from the circumstance of their being constructed without the use of mortar. It soon came to be noticed that the fences of the Edwards's were uncommonly neat and firm, and the time occupied in their erection extremely short. Some friends of the family, therefore, advised the eldest brother to encourage William in masonry-work, not only on the family farm, but also on the

farms of the neighbours who were willing to employ him. This was assented to; and William soon got into general requisition, and added his earnings to the common stock of the family.

Hitherto he had never seen masons at work, and was therefore ignorant of the processes and tools of masonry. But it happened that some masons were called into the village to erect a shed on the premises of a smith-farrier. William watched the operations of these workmen with the liveliest interest; and he was accustomed to stand by them for hours together, while they were at work, noting every action and process of the work. Admiring the neatness with which the pillars and other parts of the shed were constructed, and seeing the means used, he felt ambitious to equal them. He remarked that with the common mason's hammer of the country, one end of which is an axe, they were enabled to dress their stones neatly; and he concluded that the reason why he could not do the same, was, that his hammer was not *steeled*. He therefore procured hammers of a better construction, and found that he could execute his dry-walling in a far superior manner compared with his previous performances. He also procured other masons' tools, the constant use of which gave him great dexterity, and he yearned to rise in the profession of his choice, and from a builder of dry-walls, he hoped to become a builder of houses.

Soon after this period, Edwards was delighted at the confidence reposed in him by a neighbour, who engaged him to build a little workshop. This first attempt at house-building was very successful; and

Edwards obtained great credit for his performance. His next *great* work (*great* in his own estimation,) was the erection of a mill in his own parish; when he first became acquainted with the nature and wonderful properties of the *arch*. This mill, being completed, was so much approved of, not only by his employers, but also by judges of masonry, that Edwards came to be considered as the best workman in that part of the country, and he was applied to very generally where masonry-works were wanted: his fidelity and skill being well known and appreciated.

In his twenty-seventh year Edwards was induced to engage in an undertaking of a far more difficult and complicated character than any of the works which had yet occupied him. This was the bridge over the Taff, a river which flowed through his native parish, and, following a southward course, discharged itself into the Severn.

It was proposed to throw a bridge across this river at a particular spot in the parish of Eglwysilan, so as to unite the two ends of an intended road. But this proposal had many natural difficulties to contend with, on account of the great breadth of the stream, and the frequent swellings to which it was liable. Well-wooded mountains rose to a great height from both banks of the stream, which attracted the rain and poured its torrents into the river. But these difficulties probably acted as incentives to Edwards, and he contracted for the proposed bridge,—the first work of the kind in which he had ever been engaged. In the year 1746 he began his work, and constructed a bridge of three arches, elegantly light in their construction; and the whole edifice was executed in a style decidedly superior to anything of the kind ever seen in Wales; and it was in consequence universally admired and wondered at, as the production of a self-taught and untravelled artist. But Edwards was only just beginning his apprenticeship to the art of bridge-building; an apprenticeship which was cruel and severe on our poor hero, and under which an ordinary mind would have sunk spiritless and discouraged. Edwards had given ample security that the bridge should last seven years. Two years and a half only of the term had expired, when a flood of extraordinary magnitude occurred in the river. The mountain-torrents not only swelled the river, but some of the largest trees were torn up by the roots, and carried down the stream to the bridge, whose arches were not sufficiently large to admit of their passage through. Brush-wood, weeds, hay, straw, and whatever lay in the way of the flood, came down and collected about the branches of the trees, which stuck fast in the arches, and choked the free current of the waters. The aggregate of so many collected streams, uniting in their progress here, rose up against this accidental embankment, and the pressure of the water carried the bridge entirely away before it.

Edwards now proceeded by the terms of his contract to erect a second bridge with the least possible delay; and in order to admit freely under it whatever incumbrances the flood might bring down, he determined to have only one arch. None but a bold and original mind could have cherished so magnificent an idea. An arch with a span of 140 feet from pier to pier, was a thing unheard of in his time. The largest arch in the world was that of the Rialto at Venice, whose span was only ninety-eight feet*: but Edwards was one of the gifted few who required not the sanction of mere precedent; but confiding in the resources of his own mental strength, he set an example to the

world which was subsequently admired and willingly copied.

Edwards finished the erection of this stupendous arch in 1751, and had only to add the parapets when he was doomed once more to misfortune. The bridge fell into the water over which it was to have furnished a path; the great weight of the masonry at the haunches forced out the key-stone; and the arch, thus deprived of its support, of course fell.

This was a severe blow to a man who as yet had met with nothing but misfortune in a work which was to make or mar his fortunes as an architect. But his courage did not give way so easily as his bridge: his spirit and confidence were undaunted, and he proceeded, for the third time, to re-construct his bridge. Adhering to his plan of the single arch, he obviated this objection in the second bridge, by leaving three cylindrical holes, of nine, six, and three feet in diameter, in each of the haunches; and thus so reduced their weight, that they were no longer dangerous to the general safety of the structure. These holes or cylinders rise above each other, ascending in the order of the arch: their position, and the general structure of the bridge, may be understood by inspecting the figure at the head of the present article: these holes give the bridge a light and elegant appearance. About half a mile above the bridge is a waterfall, which is celebrated on account of the magnificent scenery which surrounds it. The road is along a path beautifully overhung, between the bank of the river and a lofty pile of impending rock, that seems, at a distance, to be connected with its rival on the other side, by the magnificent arch of the new bridge.

From the rocks in the middle of the river, the reach of the vale is peculiarly advantageous: and perhaps, the magic of the New Bridge is nowhere so imposing as when viewed from the front of the fall. The abutments on each side are concealed by a small bend of the Taff, and by the intervening foliage of the banks: and the arch seems to ride unsupported in the air.

This third bridge was completed in 1755, and has stood ever since.

The fame of Edwards now extended far and wide. Numbers of persons came from all parts of the world to see this bridge and its builder, who was considered as the wonder of his time. He was soon employed to build other bridges in South-Wales. He constructed the Usk bridge, over the river so named, at the town of Usk, in Monmouthshire: also a bridge of three arches over the river Tawy; and Pont ar Towy over the same river, of one arch, with a span of eighty feet, with one cylindrical hole over each haunch: Bettws' bridge in Caermarthenshire, consisting of one arch, forty-five feet in span: Landoverly bridge, in the same county: Whychbree bridge, also over the Towy, with a single arch, ninety-five feet in span, and two cylinders in each of the haunches. Abergavan bridge in Glamorganshire, was also of his construction: also Glasbury bridge, over the Wye, in Brecknockshire, a light and elegant structure of five arches. In all these bridges, the arches were small segments of large circles, so that the roads over them were much flatter and better adapted for the purposes of traffic than in the first attempt of Edwards at bridge-building.

Edwards could read and write in his native Welsh from early youth. A friendly neighbour taught him the rudiments of arithmetic, and in his twenty-first year he learnt to read in English from an old blind schoolmaster, in whose house he lived for a short time, while doing some work in the country-town of Cardiff. Although his literary attainments were humble, yet his industry, his spirit of inquiry, and

* We are here alluding to Bridges with an arch of a single span. The celebrated Alcantara aqueduct bridge, near Lisbon, finished in 1732, consists of thirty-five arches, the eighth of which has a span of 108 feet, and a height of 227 feet.

moreover his natural genius, made him a superior man. He continued to be actively employed as architect and farmer, until he died. His activity of mind was such, that he also employed his Sundays in officiating as minister to an independent congregation. He had been regularly ordained to that office at the age of thirty, and he held it till his death. He accepted a salary from his congregation, because he thought it right that they should support their own minister; but the money so gained he never applied to his own wants, but distributed it, and much more, in alms to the poor.

This worthy and superior man died at the age of seventy, in 1789; leaving behind him a family of six children, the eldest of whom, David by name, had become an architect and bridge-builder, solely under the instructions of his father; and he continued to exercise these professions with credit and skill. David's eldest son is said also to be following in the path of his father and grandfather.

The reader interested in the subject of bridges generally, will find two supplements thereon, one in Vol. VII., p 219; and the other in Vol. VIII., p 121, of this work.

MIDSUMMER, or the Summer solstice, presents itself to the contemplative man as that point of time which, like the prime of life, may be called the pivot of our expectations; on which anxieties change their balance. With what desires, hopes, and anticipations, each vernal ray inspires the zealous botanist, just as buoyant spirits excite the youthful mind.

Pleasurable prospects still continue to arise till that fated day,—the longest of the year, to which we have just alluded, like the strongest of man's life,—when no longer does each succeeding day outstretch its predecessor in length or strength, but a shadowy reverse commences. When the season of brilliancy has risen to its zenith, or man to the perfection of his nature, then, and not till then, arrives a full reflection on declining days. If, however, the cultivator of a flower garden, or of the years of human life, has indulged due thought of a future season; if his young plants be well trained, his whole garden in good culture, and he has made preparation to meet the icy hand of a Winter fast approaching, all is well: he fears not present nor future storms, all seasons alike afford him pleasure. To him, indeed, we may say with Southey:—

Sweet are the harmonies of Spring,
Sweet is the Summer's evening gale,
And sweet the autumnal winds that shake
The many-coloured grove.

Reflection too may love the hour
When Nature, hid in Winter's grave,
No more expands the bursting bud
Or bids the floweret bloom.

For Nature soon in Spring's best charms,
Shall rise revived from Winter's grave,
Expand the bursting bud again
And bid the floweret bloom.—MAUND.

SENSE and understanding are not the only requisites to make men judge rightly of even the clearest religious truths. Our passions and affections have a very powerful influence over us; and where they are not carefully managed and governed, it is amazing to see, how the slightest occasions will pass for most weighty and conclusive arguments; and how the brightest truths will be thought to be of little moment, even to persons of the greatest sense and sagacity in other matters, where their interest or their humours do not contradict the truths which are offered to them. It is no hard matter to judge of truth, if we are sincerely disposed to embrace it. A common capacity, and an ordinary share of understanding, will afford light enough, if evil passions do not make the light that is in us to become darkness; but if our heart is not duly disposed to embrace the truth, neither may we be persuaded by the greatest arguments and demonstrations that can be offered for it, even though we have uncommon abilities to judge of, and understand the force of what is represented to us.—SHUCKFORD.

ON THE ATTRACTIVE FORCE OF A BLAST OF AIR.

WHEN compressed air escapes through an orifice, a very singular phenomenon may be shown, which has not yet found its way into our books of science, although it is well known on the continent. This phenomenon can be exhibited by the following simple experiment:—

If we cut a couple of cards each into a disc of about two inches in diameter, and perforate one of these at the centre, and fix it on the top of a tube, such as the barrel of a common quill; then, if we give the other card a little concave bend, and place it over the first, the orifice of the tube being thus directly under and almost in contact with the upper card; now, if we try to blow off the upper card, we shall find it impossible to be done.

This remarkable fact seems to have been noticed by several persons independently of each other. The French bring forward no less than three claimants, namely, M. Griffith, Mining Engineer of Fourchambault, and Messrs. Boigues of the same place, who showed the fact to Messrs. Thenard and Clement in September 1826. About this time also the same fact appears to have been noticed by Mr. Roberts, an intelligent manufacturer of Manchester. We here give the several accounts of the discovery.

M. Griffith says that, if air be powerfully compressed in a reservoir furnished with a circular opening in one of its vertical sides, and we present to the blast of air issuing therefrom a flat piece of board or metal, it will at first be repelled by the violence of the blast; but after forcing it nearer to the aperture, so as to overcome this repulsion, it will be powerfully attracted. In this position the air escapes by diverging between the interior surface of the board or metal, and the rim of the orifice.

The account of Messrs. Boigues is as follows:—A circular opening, one or two inches in diameter, being made in the flat side of a reservoir of compressed air, employed to feed a blast furnace, the air escapes with great violence; but, if we bring near to this opening a disc of wood or metal seven or eight inches in diameter, and having overcome the resistance caused at first by the blast upon the plane surface of the disc, the latter will no longer be repelled; it oscillates rapidly, at the same time receding from and approaching to the opening within very narrow limits. The air continues to escape with great noise between the surface of the disc, and that of the side of the vessel containing the air. If now we wish to withdraw the disc, it will require great muscular exertion to do so; and although the disc be not in actual contact with the side of the air-vessel, it seems as if glued to it.

The next discoverer of this phenomenon is our countryman, Mr. Roberts. Several years ago he had constructed an apparatus for ventilating his manufactory. A pipe, conveying a blast of air, terminated close to the wall of the principal apartment; and with a view to regulate the quantity of air to be introduced, he placed a valve over the terminus of the blast-pipe; but found, to his surprise, that the most powerful blast of air not only would not lift the valve, (which was merely a piece of flat board,) but that it even held the valve firmly down over the mouth of the pipe, so that the strength of one man was insufficient to withdraw it. This experiment has often been shown to visitors as one of the curiosities of Manchester.

This phenomenon can be produced by a blast of any kind of gas or vapour; by steam, and even by water, and other liquids.

The attractive force of a blast of air is particularly remarkable, if we place the card, mentioned at the beginning of this article, with its concave side upwards upon the table, and, with the tube in the mouth, hold the other card over it, and blow through the tube, when the concave card will start up from the table, and adhere to the other.

It has been stated, in reference to the experiment with the cards, that the upper card cannot be blown off, because the current of air, which passes between the two cards in consequence of blowing through the tube, is in a more rarefied state than the atmosphere around and above; and that therefore the latter presses upon the two cards, so long as the blast is kept up and causes them to adhere.

But to show that the upper card is not retained in its place merely by atmospheric pressure, the following experiment was performed by Mr. Tomlinson. Let a brass tube, open at both ends, and terminated at the lower end by a perforated screw, be fixed to the table of the air-pump. A disc of card, two inches in diameter, is placed horizontally at the upper end of the tube. Another card of the same size, made slightly concave, is placed over the first. Let the whole be covered with a glass receiver: then let the air be removed, which of course can only quit the receiver, by passing out through the brass tube. When the exhaustion is carried to its utmost limit, let the air be re-admitted in a full gush through the brass tube, and the upper card will *not* be blown off.

This experiment has been tried over many times, with various states of exhaustion, from a quarter of an inch of mercury to twenty inches; but in no case was the card blown off, or even agitated in the slightest degree: therefore the upper card is not retained in its position by the pressure of the atmosphere; but it is retained in its place from this circumstance, that when a fluid issues from an open tube, the lateral or side pressure of such fluid amounts to nothing. This is an extraordinary fact, and we will endeavour to make the proof of it as simple as possible.

It is a well-known property of fluids that they transmit their pressure equally in all directions; but this law applies only to fluids in a state of rest. When they are in motion they are subject to the laws which regulate the motions of solids, and do not transmit any lateral pressure, except when they meet obstacles to their onward motion. In proof of this conclusion we refer to an elegant experiment of Bossuet.

To a large reservoir of water a horizontal tube was attached, three feet in length, and three quarters of an inch in diameter, and about the middle of this tube was made a small lateral hole, for the formation of a *jet d'eau*, the pipe being so adjusted, that the hole might be directed upwards, downwards, or sideways, by merely turning the tube on its axis. The water in the reservoir was kept to the height of four feet above the tube; and the extreme end of the latter being closed, the *jet d'eau* was immediately formed. When the hole was upwards, the jet rose very near to the surface of the water in the reservoir. The jet was obtained in like manner, whichever way the hole was turned. The end of the tube was now opened, the water began to flow out at it, and the jet ceased almost entirely. It was only observed that, when the hole was turned below, the water escaped in drops. The cessation of the jet clearly proves the cessation of the pressure of the water against the sides of the tube.

The young student may perform a similar experiment by taking a tube, (such as a pea-shooter, or a tube of paper will do,) and making a hole in the side.

Then, if we put one end of this tube in the mouth, and stop up the other end, and blow, the air will rush out at the side-hole; but, if we open the lower end, we shall, on blowing, be scarcely able to feel the air coming out from the side-hole. In the one case the air from the side-hole will blow out a candle; which it will not do when the tube is open at both ends.

The reason then why the upper card cannot be blown off is this; the first impact of the blast tends, of course, by its momentum to force off the upper card; and, if this be not done at once, the current of air spreads out into a film, and escapes at the circumference of the discs, and in so doing its motion is altogether lateral,—the pressure of which, as we have seen, amounts to nothing: therefore the disc is not removed, because there is, in fact, no force to effect its removal.

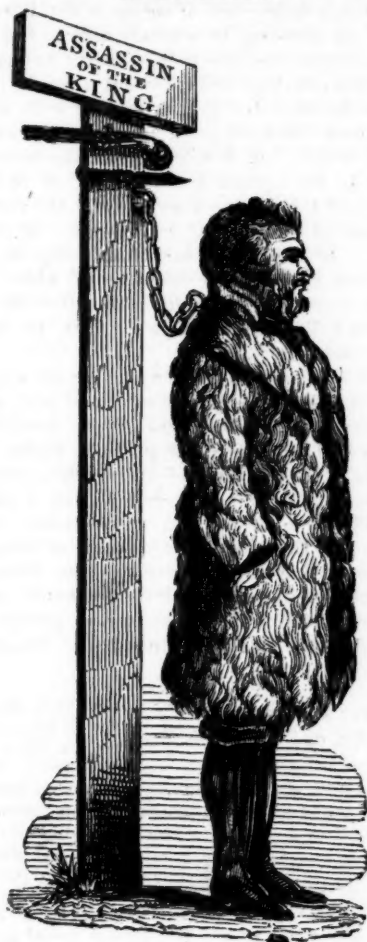
This little experiment, trifling as it may appear, is, however, of first-rate importance, and may possibly serve to throw light upon some of the terrific explosions of steam-boilers. It is possible, under certain conditions, that the blast of steam which escapes at the safety-valve may become reduced to a thin film with a lateral motion, and consequently without pressure; so that the valve, instead of being lifted up, to allow a full and free vent to the steam, may become attracted, which attraction would increase with the elasticity of the steam, and so precipitate the danger which the valve was intended to counteract.

THE disappointment of those who look for a detailed account of geological phenomena in the Bible rests on a gratuitous expectation of finding therein historical information respecting all the operations of the Creator, in times and places with which the human race has no concern; as reasonably might we object, that the Mosaic history is imperfect, because it makes no specific mention of the satellites of Jupiter, or the rings of Saturn, as feel disappointment at not finding in it the history of geological phenomena, the details of which may be fit matter for an encyclopædia of science, but are foreign to the objects of a volume intended only to be a guide of religious belief and moral conduct.

We may fairly ask of those persons who consider physical science a fit subject for revelation, where revelation might have stopped, without imperfections of omission, less in degree, but similar in kind, to that which they impute to the existing narrative of Moses? A revelation of so much only of astronomy as was known to Copernicus would have seemed imperfect after the discoveries of Newton; and a revelation of the science of Newton would have appeared defective to La Place; a revelation of all the chemical knowledge of the eighteenth century would have been as deficient, in comparison with the information of the present day, as what is now known in this science will probably appear before the termination of another age. In the whole circle of sciences, there is not one to which this argument may not be extended, until we should require from revelation a full developement of all the mysterious agencies that uphold the mechanism of the material world. Such a revelation might indeed be suited to beings of a more exalted order than mankind; and the attainment of such knowledge of the works, as well as of the ways, of God, may perhaps form some part of our happiness in a future state; but unless human nature had been constituted otherwise than it is, the above supposed communication of omniscience would have been imparted to creatures, utterly incapable of receiving it, under any past or present, moral or physical condition of the human race; and would have been also at variance with the design of all God's other disclosures of himself, the end of which has uniformly been, not to impart intellectual but moral knowledge.—*Bridgewater Treatises*.

THE morality of an action depends on the motive from which we act. If I fling half-a-crown to a beggar, with intention to break his head, and he picks it up, and buys victuals with it, the physical effect is good; but with respect to me, the action is very wrong.—JOHNSON.

DEATH OF GUSTAVUS THE THIRD, KING OF SWEDEN.



ANKARSTRÖM EXPOSED TO PUBLIC VIEW AT STOCKHOLM.

ONE of the most remarkable events in the history of Europe, during the last century, was the murder of Gustavus the Third, King of Sweden. Sweden is a country which, by its northern situation, is very much removed from the grand political events, of which central Europe is so often the theatre; and for that reason, we, in this country, hear much less frequently of the Swedes than of most other European nations. The circumstances of that country, however, in the last century, presented much that is interesting; and the murder of the king, at the latter end of the century, has formed materials for the dramatist, as well as for the historian. We will give a rapid sketch of the circumstances which led to the murder of a monarch, who seems to have ill deserved such a fate.

Gustavus the Third was the son of Adolphus Frederick, king of Sweden, and was born on the 24th of January, 1746; and on the 12th of February, 1771, he succeeded his father on the throne. At the period of his accession, the supreme authority, in consequence of abuses which had crept into the government, resided in a tumultuous assembly of four orders or classes, into which were admitted tradesmen, and even peasants. Although statutes were signed by the king, and ordinances were issued in his name, yet he possessed no veto or negative; and if he refused to sign a decree, the public seal was affixed without his permission. The king was, in short, only an instrument in the hands of one or two great parties, which divided and governed the kingdom among themselves, and were detested by the people.

Under these circumstances, Gustavus determined to place the power of the monarch in a more respectable and fitting condition, and to remove it from being the football of opposing and ambitious parties. He began by obtaining the support and goodwill of the militia, and by promoting subalterns of merit. His brother traversed the country, and gained the support of the military commanders. With the aid of these supporters, and possessing the love and affection of his subjects, he was enabled to effect a great change in the mode of governing the country. He abrogated the old constitution, and established another which removed the nation from the violent and contending ambition of the nobles, without infringing upon the privileges of the people, excepting in a minor degree.

His power became greatly increased by this new order of things; but it is generally admitted that he employed it for the good of his people. He took care that the law should be administered with strict impartiality to the poor and to the rich, and made severe examples of such judges as were proved to have made the seat of justice the source of venality. He was the encourager of commerce, was a liberal and enlightened patron of learning and science, and laboured strenuously to introduce into his kingdom the most important improvements in agriculture, that had been adopted in other countries. Having attended to the arts of peace, he began to consider how he could best provide for the restoration of his fleet and army, which he found in a feeble state. Desirous of diffusing learning among his subjects, he gave every encouragement to the pursuit of the arts and sciences, and to the *belles lettres*. He procured a good translation of the bible, by eminent scholars, and he invited men of talent to employ their pens in the production of elementary works on all subjects. He was himself a man of excellent talents. To a great fund of natural eloquence he united the most insinuating manners; and it is said that the extent of his knowledge, and the solidity of his judgment, excited the admiration of those who had access to him.

Such was Gustavus after he had made a change in the Swedish constitution; and it is not surprising that he continued to be a favourite with the mass of the nation. But the nobles, who had been discomfited, retained a bitter animosity against the king, and lost no opportunity of showing it. He had appointed Count Lowenhaupt to be Marshal of the Diet, and the latter was so grossly insulted by the nobles that he absented himself from his duty. These repeated instances of opposition led Gustavus to the adoption of a plan which has brought censure upon him from those who would otherwise admire his character. In February, 1789, the king, in person, appeared in the Assembly, and demanded satisfaction for the insult offered to his marshal. A violent altercation ensued between the king and the nobles, and the latter rose in a body, and quitted the assembly, leaving the king and the other states together.

For three days Stockholm was in a state of confusion; but on the fourth, the houses of all the nobility were surrounded at the same instant, and the nobles were arrested and sent as prisoners to the castle of Frederickshoff. From this moment Gustavus abolished the senate, and supplied its place by a new court, which was endowed with large powers, but subject entirely to the king. Thus, whatever provocation he might have received from the nobles, he laid himself under the odium of becoming a despotic monarch by this act.

It was about this period that Europe was thrown into commotion by the events occurring in France,

The revolution was just then beginning to acquire that serious aspect which was the forerunner of so much that was cruel and horrible. Gustavus entered into a league with those European powers that opposed the revolutionary proceedings of France. The necessity for raising troops, and providing all the munitions of war, obliged him to press rather heavily on his subjects for taxes, and the discontented nobles seized upon this circumstance to alienate the feelings of the people from the king, and there were repeated disputes and exhibitions of angry feeling between the king and the nobles: and it has even been hinted that some members of the royal family were not backward in joining the dissatisfied nobles.

By the month of March, 1792, affairs between him and his opponents assumed a more serious aspect. On the 16th he received an anonymous letter, warning him of his immediate danger from a plot that was made to take away his life, requesting him to remain at home, and to avoid balls and other assemblies for a year, and assuring him that if he should go to the masquerade that evening, he would be sure to be assassinated.

The writer of this letter was not then known; but the information conveyed proved ultimately to be correct. It appears that a conspiracy was set on foot by Count Horn, Count Kibbing, and Colonel Lilienhorn, and that a nobleman named Ankarström, whom he had personally offended, undertook to assassinate the king. Ankarström had been an ensign in the king's guards, but left the service at the age of twenty-four, having obtained the honorary or brevet rank of captain in the army; after which he retired to his patrimonial estate. Ankarström was one of those who conceived a dislike for the king: but it is believed that that animosity did not arise from the king's conduct against the nobles, on the occasion of the first revolution; but on the assumption of despotic power, on the occasion of dissolving the senate. Ankarström spoke strongly, in the presence of the king, on the occasion of the dissolution of the senate, and was imprisoned by the king, for having addressed an assembly of peasants, against the royal measures.

These, and other circumstances, led Ankarström to the determination of murdering the king: and it appears that he planned this without concerting with any one else; but upon finding Horn, Kibbing, and Lilienhorn were much of his way of thinking, they concerted a plan together. They first tried to seize the king's person: but being thwarted in that plan, they proposed to murder him at a masked-ball, which was to be given, at the opera-house at Stockholm, on the day to which we have before alluded; and it was to this masked-ball that the anonymous letter, sent to the king, referred.

The king treated the anonymous letter with contempt, and went, in a domino dress, into the ball-room, at a late hour. After some time, he sat down in a box near Count D'Essen, and observed that he was justified in his contempt for the letter; since, had there been any design against his life, no time would be more favourable than that moment. He then mingled, without apprehension, among the crowd; and just as he was preparing to retire, in company with the Prussian ambassador, he was surrounded by several persons in masks, and Count Horn accosted the king, saying, "Good day, fair Mask!" At these words, which were the signal agreed upon, Ankarström fired a pistol, and dangerously wounded the king in the thigh, or, as some say, in the back. A scene of dreadful confusion immediately ensued. The conspirators, amid the general tumult and alarm, had

time to retire to other parts of the room; but one of them had previously dropped his pistols and dagger close to the wounded king. The armourer, whose name was on these instruments, deposed that he had lately sold them to Ankarström; and on this being made known, an order was sent for the immediate arrest of Ankarström, who was seized in his bed, with his wife, who was quite ignorant of all that occurred, sleeping peacefully by his side.

The king, after being wounded, was conveyed to his apartment; and the surgeon, after extracting the ball and some slugs, gave favourable hopes of his recovery. The reports of his medical attendants soon proved to be fallacious, and on the 29th of March he expired, and on opening his body, there were found within the ribs a square piece of lead, and two rusty nails. He died with great firmness, and in his last moments he desired that all the prisoners, except the person who perpetrated the sanguinary deed, might be pardoned. Many persons were arrested and tried, two of whom destroyed themselves, and Counts Horn and Kibbing, and Colonel Lilienhorn, were banished for life. For Ankarström a different fate was reserved.

On his first examination he was subjected to the torture; but he was afterwards tried before the ordinary tribunals. He acknowledged his crime, but denied having any accomplices. He, however, confessed that several persons knew of his determination.

On sentence of condemnation being passed against him, he was carried to the *Place de Ridderholm*, an open square, or "place," in Stockholm, and exposed upon a scaffold, raised for the purpose, in front of the Senate-House, upon the left of the pedestrian statue of Gustavus Vasa, and at the end of a street which terminates in the square. The throng of spectators was immense. Several detachments of cavalry, with drawn sabres, preceded the cart in which Ankarström, surrounded by executioners, was conveyed from his prison. The streets were lined with infantry.

After being publicly flogged, he was chained to a post, and left exposed, for several hours, to the view of all the people. Over his head was fastened, in a conspicuous manner, the dagger and the two pistols, with which he went to the masquerade; and over all appeared this inscription, in the Swedish language:—*ASSASSIN OF THE KING*. When Dr. Clarke visited Stockholm, several portraits of him were to be had in the shops, and one of them represented him as he was chained to the post in the public place. This was copied by Dr. Clarke, and it also forms our frontispiece. Clarke says that this was considered an admirable likeness of the man. He was five feet two inches high; his hair was black, short, and frizzled; his nose aquiline, and he had a firm and lofty expression of countenance; regarding the vast throng of spectators with an unmoved appearance of calmness and indifference.

He was exposed to public view for three days. Upon the fourth day his right hand was struck off; after which he was beheaded, and his body separated into four quarters.

In the fever and excitement which attended the public mind at the sudden murder of the king, many persons looked at it as a glorious deed, and wrote verses commemorative of the exploit of Ankarström, and lamenting his fate. But the calm eye of the historian, which can detect the proper light, in which a subject should be viewed, uninfluenced by the warm feelings that agitate all parties immediately after such a deed, has seen, that even if murder were permitted to man, as an instrument of revenge, (which we all

know it is not,) Gustavus was not deserving such a fate. Like many other men, as he acquired power, he was eager for more, and suffered his ambition to lead him to acts which were contrary to the principles which distinguished the earlier years of his reign. But still he was a kind and valuable king to the mass of his subjects; and his constant endeavours, throughout his reign, to advance science, art, manufactures, literature, agriculture, and all that is useful in a state, show that his heart was alive to the improvement and well-being of his country generally. And it is probable, that had he not been driven and goaded onwards by the opposition of ambitious men, and his good sense somewhat warped thereby, he would not have taken those steps, in the latter part of his reign, which have caused him to be looked upon as a despotic monarch, different from what he wished to be and appear, in the earlier part of his reign.

THE largest merchant-vessel in Java, a ship about one thousand tons burden, was built by an Arab merchant, in a long but shallow river, which runs into the sea near Sourabaya. As great expense is incurred by floating the timber in rafts down the river, he determined to commence the work in the forest itself, as he would thereby be enabled to select the best trees for the purpose. He accordingly ascended the river, accompanied by a sufficient number of workmen, conveying the necessary materials, and commenced the undertaking about eighty miles from the sea. When the keel, and the floor timbers were laid, and a few of the bottom planks nailed on, he launched the embryo vessel, and floated her gently down the river to a place in which the water was deeper. Here the building was continued, until it became necessary to seek a deeper channel: and in this manner the work proceeded, the vessel being floated further down the river whenever the water was found to be too shallow for her to float, until at length she was fairly launched, half finished, into the sea, and completed in the harbour.—*EARL'S Voyages.*

EXTRAORDINARY POWER OF MEMORY.

SENECA is reported to have been able to repeat two thousand verses at once, in their exact order, and then rehearse them backwards, with so much precision as not to miss a single word or syllable. Cyrus had a memory so exceedingly tenacious, that historians say he could call every soldier in his immense armies accurately by name. Mithridates, who was the ruler of twenty-three nations, speaking different languages, could converse with all of them in their vernacular tongue. A Corsican boy could rehearse forty thousand words, whether sense or nonsense, as they were dictated, and afterwards begin with the last word, and repeat them backwards without a single mistake. Dr. Wallis extracted the cube root of three, even to thirty places of decimals, solely by his memory. Magliabechi, an Italian, who read most of the books written in his lifetime, could tell what was the subject of each author, quote the chapters, sections, and pages, in which any particular subject was expressed; besides this, he could repeat even the writer's own words. A gentleman loaned him a manuscript to examine, and afterwards pretended he had lost it, when, to his utter amazement, Bechi wrote it word for word, by the mere strength of his memory, although he read the article but once. Euler lost his sight in 1783, yet carried on his complicated and abstruse mathematical calculations on the inequalities of the planetary motions, and composed a treatise on algebra, by dint of his astonishing memory. He could, moreover, repeat the *Æneid* of Virgil from beginning to end, and tell the first and last line of every page in the edition which he had read before he became blind. Whitfield is said to have been so familiar with the Scripture, that he could repeat the whole Bible without mistake. A physician who died a few years since, in Massachusetts, could repeat the *Paradise Lost* of Milton in his old age, though he had not read it for twenty years.

EVERY look, every movement, every expression, does something towards forming the character of the little heir to immortal life.—*MRS. CHILD.*

THE VIRGINIAN COWSLIP.

(*Dodecatheon Meadia.*)

What sudden pleasure, when some object rare,
Confined peculiar to one soil and air,
More precious far from expectation grown,
By some blessed turn upon the sight is thrown!—*DEMLLE.*

THE delight with which the botanist views a newly-discovered plant can only be conceived by the students of nature; it seems to expand his ideas, and give him new conceptions of the wisdom of the Great Creator. He contemplates with admiration the harmony of its parts, which he finds so happily adapted to its native situation on the globe; he learns by the character of the plant the climate to which it belongs, and he soon conceives the utility of the individual plant to the grand link of vegetation by which the animal world is supported. He deems it as the most important event of his life, and he joyfully bestows on it the name of some esteemed friend, or eminent countryman; his fancy pictures it growing under cultivation with his native plants; his immediate acquaintance covet it for his sake, and his name is justly registered amongst those who have benefited their country by peaceable pursuits.

The plant, of which we are about to speak, is indigenous to the Columbian world, that vast field from which such store of novelty has been poured into the more known quarters of the globe. It grows in several parts of North America, and was first sent from Virginia by Banister to Bishop Compton in the year 1704; and Miller mentions having seen it in blossom at his lordship's garden at Fulham in the year 1709. After which, the plant was lost for several years in England, till it was again obtained from America, by Mr. Catesby, about the year 1744.

Mr. Mark Catesby, in his *Natural History* of Carolina, gave it the name of *Meadia*, in honour of Dr. Richard Mead, an English physician of that day, who, like some of the present time, was courted by the wealthy, and adored by the needy of his country, whilst his name was revered by the eminent of all parts of Europe.

On this account we feel a regret that Linnæus should have thought it necessary to change the generic term of this plant from that of *Meadia*, and more particularly so since the one he has bestowed on it seems as inappropriate, *Dodecatheon* being derived from two Greek words, which mean twelve gods; and the only cause he could have for adopting so whimsical a name, was from the observation that each of these plants generally produced twelve corollas. *Meadia*, however, remains as the specific name for the plant, of which there has not yet been a second species discovered. The French have given it the name of *Gyroselle de Virginie*, in addition to that of *Dodecatheon Meadia*.

This elegant plant flowers about the end of April, or the beginning of May; the stalk, after rising up to about eight inches in height, throws out an umbel of flowers, gracefully pendant, as rockets appear, when thrown out of an elevated piece of fire-work.

The petals of the flower are of a rosy lilac, inclining to the colour of the peach or almond blossom; and they are reflexed, or turn back over the calyx, giving the appearance of an half-expanded parasol, which resemblance is considerably heightened by the long tapering shape of the parts of fructification, and the golden colour of the anthers.

The *Dodecatheon* should be planted in a shady situation, where the earth is of a loose, moist nature; but its beautiful delicacy and graceful formation make it deserving a situation even amongst the plants that are potted for the house.

It is easily propagated by offsets, which should be taken from the old plants in the month of August, that they may be fixed well to the earth before the frost comes on. It is increased more rapidly from seed, which the plant generally produces in plenty; these should be sown soon after they are ripe, either in pots or a shady border. If these plants are much exposed to the sun whilst young, they are almost sure to perish, so impatient are they of heat. Many persons have lost their stock of these plants by planting them in dry soil in the most sunny parts of the garden, without reflecting from what latitude they were originally brought, or recollecting the lines wherein Milton tells us,

Nature's boon
Poured forth profuse on hill, and dale, and plain,
Both where the morning sun first warmly smote
The open field, and where the unpierced shade
Imbrowed the noon-tide bowers.

[PHILLIPS' *Flora Historica*.]

AN EPISTLE IN RHYME,

FROM COWPER THE POET, TO HIS FRIEND THE REV.
JOHN NEWTON.

My very dear friend, July 12, 1781.

I am going to send, what when you have read, you may scratch your head, and say, I suppose, there's nobody knows, whether what I have got, be verse or not; by the tune and the time, it ought to be rhyme; but if it be, did you ever see, of late or of yore, such a ditty before? The thought did occur, to me and to her, as madam and I, did walk and not fly, o'er the hills and dales, with spreading sails, before it was dark, to Weston Park.

The news at *Oney* is little or none; but such as it is, I send it, viz.: Poor Mr. Peace cannot yet cease, addling his head with what you said, and has left parish-church quite in the lurch, having almost sworn to go there no more.

Page and his wife, that made such a strife, we met them twain, in Dog-lane; we gave them the wall, and that was all. For Mr. Scott, we have seen him not, except as he pass'd, in a wonderful haste, to see a friend at Silver End. Mrs. Jones proposes, ere July closes, that she and her sister, and her Jones mister, and we that are here, our course shall steer, to dine in the Spinney; but for a guinea, if the weather should hold, so hot and so cold, we had better by far, stay where we are. For the grass there grows while nobody mows, (which is very wrong,) so rank and long, that so to speak, 'tis at least a week, if it happens to rain, ere it dries again.

I have writ Charity not for popularity, but as well as I could, in hopes to do good; and if the Reviewer, should say "to be sure, the gentleman's Muse, wears methodist shoes; you may know by her pace, and talk about grace, that she and her bard have little regard, for the taste and fashions, and ruling passions, and hoidening play, of the modern day; and though she assume a borrowed plume, and here and there wear a tittering air, 'tis only her plan, to catch if she can, the giddy and gay, as they go that way, by a production, on a new construction. She has baited her trap in hopes to snap all that may come, with a sugar plum."

— His opinion in this, will not be amiss; 'tis what I intend, my principal end; and if I succeed, and folks should read, till a few are brought to a serious thought, I shall think I am paid, for all I have said and all I have done, though I have run, many a time, after a rhyme as far as from hence, to the end of my sense,

and by hook or crook, write another book, if I live and am here, another year. I have heard before, of a room with a floor, laid upon springs, and such like things, with so much art, in every part, that when you went in, you was forced to begin a minuet pace, with an air and a grace, swimming about, now in and now out with a deal of state, in a figure of eight, without pipe or string, or any such thing; and now I have writ, in a rhyming fit, what will make you dance, and as you advance, will keep you still, though against your will, dancing away, alert and gay, till you come to an end of what I have penn'd; which that you may do, ere madam and you, are quite worn out, with jigging about, I take my leave, and here you receive a bow profound, down to the ground, from your humble me, W. C.

P.S. When I concluded, doubtless you did think me right, as well you might, in saying what I said of Scott; and then it was true, but now 'tis due to him to note that since I wrote, himself and he has visited me.

[WILLMOTT'S *Letters of Eminent Persons*.]

THE ANCIENT EGYPTIANS.

FROM the frequent representations of entertainments on the monuments, it is manifest that the Egyptians were a very social people: they appear to have neglected nothing which could tend to promote festivity,—music, songs, dancing, feats of agility, and games of chance, filled up the space, between the coming of the guests and the serving of the feast. Visitors of high rank arrived in palanquins, or chariots, escorted by numerous attendants, some of whom acted the part of running footmen, as was once the fashion in England. Before entering the festive chamber, water was provided for the hands and feet of those who arrived from a distance: the want of gloves, and the open sandals used for the feet, rendered this practice general among most ancient nations. On some occasions, clothes were provided for the guests; and neglecting to use them was considered an act of disrespect to the host. The guests were then anointed with a perfumed unguent; and this custom, which appears to have been borrowed, from the Egyptians, by the Jews, was practised in Palestine so late as the period of our Saviour's ministry. So perfect were the Egyptians in the manufacture of perfumes, that some of their ancient ointment, preserved in an alabaster vase, in the museum of Alnwick Castle, retains a very powerful odour, though it must be between two and three thousand years old. Necklaces of the lotus-flower were also hung round the necks of the guests, and bouquets of this favourite flower were constantly renewed by servants, as those in the room faded from heat or handling. Wine was served at the beginning of an entertainment, as is still the custom in China. In general the guests sat erect, but couches were provided for those who preferred a reclining posture. The most singular custom among the Egyptians was to introduce during, or after, their feasts, a wooden image of Osiris, in the form of a human mummy, sometimes erect, and sometimes extended on the bier,—as a solemn warning of the brevity of life, and the vanity of all sublunary enjoyments.

DUTY is far more than love. It is the upholding law through which the weakest become strong, without which all strength is unstable as water. No character, however harmoniously framed and gloriously gifted, can be complete without this abiding principle: it is the cement which binds the whole moral edifice together, without which all power, goodness, intellect, truth, happiness, love itself, can have no permanence; but all the fabric of existence crumbles away from under us, and leaves us at last sitting in the midst of a ruin,—astonished at our own desolation.—Mrs. JAMESON.

LONDON:

JOHN WILLIAM PARKER, WEST STRAND.
PUBLISHED IN WEEKLY NUMBERS PRICE ONE PENNY, AND IN MONTHLY PARTS,
PRICE SIXPENCE.
Sold by all Booksellers and News-venders in the Kingdom.